SCHOOL PHYSICIANS' BULLETIN

Vol. 1 DECEMBER, 1931 No. 17

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PARIS

(From Our Regular Correspondent)

July 9, 1930.

Viosterol and Tuberculosis

Simonnet and Tauret conceived the idea of utilizing the fixation power of calcium, recognized in viosterol, to strengthen the natural means of defense of the lungs against tuberculosis. It has long been known that calcium will serve that purpose. Stone-cutters who work in the midst of calcareous dust present a remarkable immunity to tuberculosis, whereas those who work in silicious dust are, on the contrary, predisposed, because the particles of silicious dust, having sharp points, cause a wounding of the mucosa of the respiratory tracts. Professor Coutière even based a method of treatment in pulmonary tuberculosis on the use of irrigations of calcium carbonate reduced to an impalpable powder. In a communication presented to the Academy of Sciences, Simonnet and Tauret reported their curious experiences in which they found that ergosterol irradiated by ultraviolet rays, when administered to rabbits, caused a rapid increase in the percentage of calcareous salts in the lung tissue. This increase was from 1 to 20 in the healthy rabbit and from 1 to 80 in the tuberculous rabbit. They announced that they had begun to apply this method in man and that the first results so far secured give them great hopes.

J.A.M.A., 95:424 (Aug. 9, 1930).

Viosterol in Tuberculosis

THE increasing medical literature on the possible value of Viosterol (activated ergosterol) in pulmonary tuberculosis makes it desirable that we mention at this time the fact that for over a year, the Research Laboratory of Mead Johnson & Company has collaborated in clinical investigations of the calcium-depositing action of activated ergosterol in the healing of pulmonary tubercles. This research involves extensive blood chemistry as well as roentgenographic and clinical studies. While the work has not yet advanced to the point where we feel warranted in making any definite announcements at this time, we want our medical friends to know that we are alert to the possibilities of this therapeutic measure. Physicians interested may obtain, upon request, a complete bibliography of the medical literature to date.

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School Physicians' Bulletin

Devoted to the interests and advancement of School Physicians and the service rendered by them. Your participation by membership is solicited.

Vol. 1 DECEMBER, 1931 No. 17

The Schenectady School Health Program

JOHN E. BURKE, M.D.

Assistant Superintendent of Schools, School Medical Supervisor, Schenectady, N. Y.

It is known today that personal and community health are dependent, not wholly, but to a great degree on intelligent practices which all can learn. The schools then have a responsibility, in providing health instruction compatible with age levels for all children. This instruction should result in conserving and improving if possible every child's health so that he may give and get most out of life.

As yet there is difference of opinion as to how the schools may best teach health. It is quite different than teaching languages or mathematics or other subject matter. It is not unlike perhaps teaching character development. This, we know must be included in all learnings. Necessarily, the classroom teacher must assume the burden of health teaching as she does other teachings. She is in daily contact with each child and enjoys a relationship which cannot be improved upon. Dependent on the enrollment of the school, the teacher may or may not have assistance from health specialists. In small schools where health specialists are not employed, it would be well for the teacher to be advised by specialists outside the school.

In the Schenectady School System an attempt is made with some success to begin Health Teaching when children present themselves for preschool examinations. At this time the physician and the nurse are able to supplement the parent's or guardian's knowledge of health with information that applies to the particular child being examined. It is true that many children at this early date have formed habits that are unhealthful. The school's job is to start instruction at this first contact, which will bring about healthful habits and attitudes.

When the child enters school, he is expected to be free from correctable defects as a result of the preschool examination and the follow up work. He usually is physically fit. He is not always free from health habits that if continued would sooner or later impair his health.

As stated, opinion differs as to just how the schools should undertake health work. In Schenectady, a physician is employed to direct all health

work. He ranks as an Assistant Superintendent and is a staff officer. Health, Physical Education and Social Adjustments are so closely related that they have been included in one Division. The Division, then is divided into four sections as follows: Medical Inspection, Physical Education, Health Instruction and Social Adjustments.

It is not necessary for me to detail the duties of individuals in these sections. The names indicate the spheres in which work is carried on.

THE MEDICAL INSPECTION SECTION

This section is called Health Service by some. The writer believes that in this name there is an implication that treatments are given. In Schenectady this section's work is wholly educational. Examinations of teachers, pupils and employees, with recommendations to seek proper agencies if indicated is the chief work. This work is supplemented by the follow up which does not cease until the individual has carried out the recommendations of the school physician or the modified recommendations of a therapist. In addition the sanitation of buildings and grounds, the communicable disease problem and the hygiene of instruction are the concern of this section. In carrying out their work the Medical Inspection Section is making contacts with all school people and in this way contributes much to the Health Education of all. It is likely that the workers in this section make more contacts with agencies outside the schools than any other school group makes. Medical direction here is most important.

THE PHYSICAL EDUCATION GROUP

This group is medically supervised since its particular work may contribute so much to health. Children are permitted or not permitted certain physical activities dependent on medical examinations. The writer is aware that physical education does much in the way of personality and character development both of which may well be included in the broader definition of health. This section then, is largely concerned with an activity program out of which grows not only desirable physical development but attitudes and behavior that are desirable. A close coöperation exists between the medical inspection group and the physical education group both having in mind the same ultimate objectives for every child.

HEALTH INSTRUCTION

In the first six grades health instruction is carried on by the classroom teacher not in periods devoted to this subject matter alone, but by making health applications as indicated at all times. The Health Teaching supervisor in coöperation with the educational supervisors helps where necessary at the same time giving the teacher plenty of freedom to work out her own program. Guides, as suggested by the Joint Committee of the N. E. A. and A. M. A. in the 1930 report are available for teacher's use. As yet tests of knowledge, attitudes and behavior with reference to

health are not generally given. Tests of physical fitness are done yearly by the Physical Education Section.

Junior High Schools devote a period a week to health instruction covering material as suggested by the 1930 Report of the Joint Committee. At this level, there is considerable discussion in these classes of subjects important to adolescents. Definite sex instruction is not attempted. It is the writer's belief that this information should be largely gathered from the Nature Studies and Biology. Very few teachers can discuss sex problems with individuals, fewer still with classes. We, therefore, depend on our physicians and nurses for most of this work. Even these workers are not all adapted to this work. Interviews with individuals by the physicians and nurses, of cases, that seem to need help however, is our routine. It is not unlikely that some teachers do a great deal for some children in the way of prompting healthy sex attitudes. Some day we shall expect this of all teachers.

In our Senior High Schools, we hope this year to have a period a week devoted to Health Instruction. To date we have not done this. The material suggested in Health Education for 1930 will be used in the event that this program is carried out. We might use Dr. Fishbein's book "Health Fallacies" as a text, with much profit. The discussion of quackery at this school level would be worthwhile. If children are not informed in school how to discriminate in these matters, they will be as confused as many of their elders by the popular advertisements.

Our Health Instruction work then is done by our physicians, nurses and hygienists at every contact. Our physical educators in class and in contact with individuals stress health. In fact it is likely that the real spur to achievement in physical education is health values. Our principals and teachers are stimulated by the various health workers to stress health at all times. I would not give the impression that this is done in such a way as to weary children. Where health can be integrated with other subject matter pertinently it is done; where it can not be, it is omitted. In this section of the work (Health Instruction), the writer believes, that medical guidance is apt to be sounder than the best intentioned lay guidance.

SOCIAL ADJUSTMENTS

In the section which has to do with social adjustments we have a rather definite routine. Children who are problems or who are different in any way from the accepted normal are submitted to this section for study. Personality difficulties, retardation and various maladjustments make up the large percentage of cases. Occasionally psychotic children are seen. Briefly cases are handled as follows: A teacher wishes a special study of a child. She advises the social worker who goes to the home and gets a complete family and personal history. At this time the parent is advised that the child needs special help and for this reason the study

is being made. A medical examination is then made of the child. This is complete with laboratory work if the physician's judgment is that it should be done. The teacher then writes up the case as she sees it. The principal and guidance teacher contribute to the history if interested in the case. An appointment is then made with the Medical Director's secretary for psychological tests and psychiatric examinations. When these tests and examinations are complete a conference of all interested is called and decision is made as to treatment. Follow up is done by the interested social worker and the case is seen as often as necessary by the psychiatrist. Sometimes the case is handled by the psychiatrist, sometimes by the psychologist. The social worker will look after many cases if this should be the judgment of the group. Other cases are referred to various people on the teaching staff when the problem seems to be purely an educational one. Such procedures as, transfer to special schools, change of teacher, expulsion from school, re-education of the parents or guardians, correction of physical troubles and psychiatric study of the child are ways by which relief of the problem is brought about. This section coöperates with all social agencies outside the school and the person best fitted to care for the particular case is assigned to it.

Thus far, this section has been engaged in caring for problems. We hope as time goes on to make our Mental Hygiene Program a prophylactic one as well. Some little work has been done along this line in making literature available to teachers and parents. The psychiatric service is available to teachers and other employees but as yet is not voluntarily sought. As a clearer knowledge of the section's possibilities for helping teachers is learned by teachers, it is expected that this section will function splendidly in the broader Mental Hygiene Program that we plan.

My purpose in this short paper has been to briefly outline the Schenectady Health Program. No attempt has been made to define the duties of each of the seventy people engaged in school work with health as the primary objective. This group necessarily has close contact with all school people and without the interest and coöperation of principals, supervisors and teachers as well as other Department of Education employees could not function successfully.

In describing the health work, I would not have you understand that this work and these workers are in any way isolated from the rest of the school system. This would not be desirable. This whole program is part and parcel of the complete school program which has in mind fitting children to live as fully and adequately as is potentially possible for each one. In conclusion, the writer has indicated that medical leadership is desirable in school health work. Of course this leadership should keep informed as to what progressive educators are thinking and doing. It must also keep abreast of developments in medicine and bring to the schools the best medical thought as it develops.

The Recognition and Management of Tuberculosis in Children

HENRY D. CHADWICK, M.D.
Detroit Department of Health

Our conception of pulmonary tuberculosis has changed in recent years. Formerly it was considered a disease of adults. Now it is properly recognized as one of the diseases of childhood. This is because we have learned to recognize it in an earlier form.

There are two phases of the disease—the childhood type, which follows the first infection of the lung with the tubercle bacillus, and the other more familiar adult type that results from subsequent infection.

THE CHILDHOOD TYPE

The first infection usually causes only minor changes in the lung tissue, but the adjacent lymph nodes at the root of the lung are more extensively involved. This first planting of tubercle bacilli causes so little disturbance of function that symptoms are usually absent. The disease is hidden and dormant, and for that reason it has only recently been recognized as an early phase of pulmonary tuberculosis. Not until the roentgen ray was discovered and X-ray films could be taken that would show slight changes in the lungs and in the enlarged lymph nodes about the trachea and bronchi could a diagnosis be made of this incipient phase of tuberculosis.

THE ADULT TYPE

When a child is exposed to repeated infection, or the disease resulting from the primary infection extends in the lung, we have the adult type of pulmonary tuberculosis.

DIFFERENCES IN THE TWO TYPES OF DISEASE

The childhood type of tuberculosis is largely glandular with minimum involvement of the lungs. It is comparatively benign and tends to heal. The adult type of tuberculosis is due to a reinfection. This may come from the person's own primary lesion or from exposure to another diseased person. It is restricted to the lungs, is a more serious condition and tends to become progressive.

CASE FINDING METHODS

More children and adolescents die from tuberculosis than from any one of the other common diseases of childhood. This is because the disease in the primary form produces no characteristic symptoms by which it can be recognized or even suspected, and the changes in the lung are so slight

that a physician cannot detect the disease by the usual methods of physical examination. This is the reason that the childhood type of tuberculosis has been permitted to smolder away unsuspected until such symptoms of illness as weakness, cough, fever or loss of weight become evident. The favorable period for treatment has passed, and too often in spite of all that can be done, death has its way. We, therefore, are called upon to diagnose a condition without physical signs or symptoms calling attention to its presence. Fortunately, we have two valuable procedures that enable us to do this; namely, the tuberculin test and the X-ray.

THE TUBERCULIN TEST

This is an accurate and safe method of determining whether a patient is infected with the tubercle bacillus. The test is harmless and is made by rubbing a substance called tuberculin into the skin of the arm. This is a liquid containing no germs, living or dead; all have been filtered out. Not only is the liquid filtered, but it has been boiled and evaporated until only one-tenth of the original amount remains. It cannot cause any infection. The doctor can tell by the appearance of the skin three to five days after the test whether or not the child has been infected with the germs of tuberculosis. This infection is common in children and if not excessive is of no consequence.

We use the tuberculin test to find the infected children. From one-quarter to one-third of all school children are infected with the germs of tuberculosis, but only two or three in one hundred have enough infection to cause disease. They are the ones whom we wish to find, as upon early diagnosis depends the success of treatment.

THE ROENTGENOGRAM, OR MORE FAMILIARLY CALLED THE X-RAY FILM

This enables us to see changes caused by disease in the lung or lymph nodes at the root of the lung. Tuberculosis causes increased density of the tissues and enlargement of these nodes, and these changes can be found early in the disease. It is expensive, however, to take a roentgenogram of every child. For this reason, methods for sifting out tuberculous children from the mass have been attempted so that only those known to be infected are X-rayed.

The tuberculin test is very valuable for this purpose. Only children who have tubercle bacilli in their bodies will react to this test. It will enable us to find all those with tuberculous disease by X-raying only one-quarter to one-third of the children.

SCREENING OUT THE TUBERCULOUS CHILDREN

Other screens than tuberculin testing have been used for this purpose but have not proven satisfactory. For example, much time has been given to weighing and measuring children to determine the degree of underweight and then examining those who were ten per cent below average

weight. This plan of selection was given up when cases of tuberculosis were found almost as frequently in children who were average weight or overweight. The state of nutrition is not influenced unfavorably in the early stages of tuberculosis, and malnutrition or underweight, therefore, is not a reliable guide in picking out the tuberculous children.

Physical examination of all school children is not of much value in finding the children with early tuberculosis, as changes in breath sounds and the percussion note cannot often be detected until after the disease has passed the incipient stage.

Children who are known to be exposed to tuberculosis in the homes are quite certain to be infected; and among this group, cases of disease will be found. We cannot, however, be satisfied in the examination of only the contact children, as many more are exposed to infection from undiagnosed or unsuspected cases of tuberculosis. Therefore, underweight, physical examination and history of contact are all inadequate and unreliable screens to use in separating the tuberculous from the non-tuberculous children.

STEPS IN THE PROCEDURE FOR DIAGNOSIS

The tuberculin test alone of all the methods tried is the one that will sift out all the infected children. Second, an X-ray of these infected children will determine the ones who are diseased. Third, the physical examination of those who show X-ray evidence of disease is needed to determine whether or not the condition seen in the X-ray is due to tuberculosis or to some other disease. When the examination as outlined above has been completed we have the children divided into two major groups—the negative and the positive reactors.

First, the negative cases. These are the ones who did not react to the tuberculin test. This will be approximately seventy-five per cent of the elementary grade pupils and sixty per cent of the high school students. The possibility of tuberculosis can thus be eliminated in this large group.

Second, the positive reactors. They will include about twenty-five per cent of the grade children and forty per cent in the high school. They are the infected children, which in itself is not of serious consequence unless the infection is excessive and has resulted in disease. The X-ray is necessary to determine this.

When these procedures have been carried out in a classroom, the physician has the evidence needed to determine what children have tuberculosis, the type and the extent of the disease.

After the examination of the children, the physician will list them in four classes. First, those with the adult type of pulmonary tuberculosis. Second, those with the childhood type. Third, the suspects. (These are the ones in which there is some evidence of tuberculosis but not definite enough to make a diagnosis.) Fourth, those with non-tuberculous disease of the lung; such cases are occasionally found. This method has been

carried out in Massachusetts by the State Department of Health for the past seven years. During the school year just completed, a tabulation of the work shows that 48,600 grade children and 8,700 high school pupils were examined. These figures represent sixty per cent of the enrollment in the grade schools and 49 per cent in the high school in which these examinations were held. Twenty-six per cent of the grade pupils and 43 per cent of the high school pupils gave a positive reaction to the tuberculin test. The positive reactors were X-rayed, and 16,500 films were required for this purpose. Three thousand four hundred and sixty-five of the roentgenograms showed definite or suspicious evidence of disease, and these children, representing six per cent of the number tested, were given a careful physical examination. In the grade children, one case of pulmonary tuberculosis, adult type, was found in each 3,700 children and one pulmonary case, adult type, in each 450 high school pupils. The childhood type of tuberculosis was found in one per cent of the grade pupils and 1.2 per cent of the high school pupils. In addition, three per cent of the grade pupils and two per cent of high school pupils were classed as suspects.

DISPOSITION OF THE TUBERCULOUS CHILDREN

Approximately five per cent of the children will need supervision or treatment. The management of these tuberculous children varies with the type and extent of the disease.

THE ADULT TYPE

Those with this type of pulmonary tuberculosis should be excluded from school and receive sanatorium care. They are the only ones that are a menace to other children. They can spread infection; therefore, exclusion is important. Then again their disease demands treatment such as can be obtained in sanatoria. They have a more serious form of tuberculosis, and at best the prospect of recovery is poor. Fortunately, only one in about three thousand grade children and one in 450 high school students will have this serious form of tuberculosis.

THE CHILDHOOD TYPE

Those with this type of disease have very little involvement of the lungs. The disease is mainly in the lymph nodes at the root of the lungs. The course is mild and tends to heal. This type of disease is not infectious to others. The children need not be excluded from school except in a few instances where they require more intensive treatment than can be obtained at home. It is important, however, that the parents and other members of the household be examined to determine if possible the source of the infection. The children themselves will usually become adjusted to their disease, which will slowly heal, provided they are guarded against further infection and can have reasonably good home care. Their school

activities should be modified. They should be assigned to an open air school or open window room, not so much for the additional fresh air, which of course is desirable, but far more important are the additional rest periods that are routine in such classrooms. The nutrition of these children should have special attention. Suitable food to supplement an inadequate breakfast is better served at the beginning of the session than later in the morning. A hot noon lunch should be supplied. A rest period of at least an hour during which the children may sleep is most essential. Then a light lunch before dismissal is desirable. The school nurse should obtain the parents' coöperation in getting their children to bed reasonably early. No home school work should be given. They should be excused from all gymnasium work, and indoor athletics should be forbidden. Competitive games are a source of danger, as the strain of such contests may cause a spread of the disease. An X-ray examination of the chest every six months is needed to show the course of the disease and used as a guide in directing the child's activities.

THE SUSPECTS

The children classed as suspects may attend regular classes and take part in the usual school activities with the exception of competitive sports. These children should be kept under observation and examined at intervals of six months until the abnormal condition clears up or a diagnosis is made.

The Committee on Communicable Disease Control of the White House Conference on Child Health and Protection recommended the systematic examination of school children in the third, sixth, ninth and twelfth grades, using the tuberculin test and the X-ray to find the tuberculous children. It would be better to examine every child each year, but as that is impracticable the plan suggested would be quite satisfactory if each child found with actual disease in these examinations was kept under close supervision throughout his school life.

I would strongly advise that this plan be put into effect wherever possible. If it cannot be adopted as a whole and has to be curtailed, then it would be better to restrict the examinations to the ninth and twelfth grades, as among the older pupils the greater number of tuberculous children who are in need of treatment will be found.

NUTRITION IN RELATION TO MORTALITY

McCarrison kept 2500 rats on faulty diets over a period of two and a half years. The mortality of these rats was 31 per cent as compared with 1 per cent for 865 rats kept at the same time on a good diet. He believes that the rats of the first group were rendered highly susceptible to infection by their defective diets, and that this applies also to humans.—*Boston Medical Journal*, January 21, 1928.

President Hoover Urges Care of Speech Defectives

FREDERICK VAN DOREN MARTIN
Department Speech Education, Ithaca College

In his address to the National Congress on Child Welfare, President Hoover cited the enormous percentage of speech defectives in our schools and stressed the necessity for the proper training of these cases, if they are to become normal citizens in our community.

While it is true that the percentage of the school population needing special speech training is great, nevertheless, educators, and those in charge of the welfare of our children, should see that such remedial measures are employed solely by those properly trained to do such work. It is surprising to note the tendency in our school systems either to neglect this field entirely or else relegate the work as a side issue to teachers who have made but a cursory study of the subject and are often misled by the lectures or literature of mere faddists in the field of psychology, or to peripatetic speech specialists. Only too often the training of such children falls to the lot of an instructor in Oral English or Dramatics whose only special education has been in a school for expression where there has been no definite scientific or clinical study of the subject. Such instructor's chief resort is (a) the correction of a speech defect by the fallacious application of the International Phonetic System, which has proven futile in its application; (b), the development of voice through some baneful conscious control of breathing, which often proves injurious; or (c), some psychological trick or unnatural intonation of voice, as the "Octave Twist," all of which are the common stock in trade or "secret" of the many advertised schools for stammerers.

In the selection of a place to study the subject of speech disorders, a teacher should be guided by two principles: (1) Is the course a practical one, giving actual scientific practise in a clinic, or merely a series of lectures upon the theories of the subject; and (2), Is the clinic employing technique which has proven successful and is eclectic in scope; or is the clinical work merely the experimental idea of some psychologist limited in viewpoint and often in real training in the field.

To be successful in the correction of speech defects, especially stammering, stuttering, lisping and lack of proper voice production, a teacher must be able to solve the personal equation which is encountered in each case. For its solution three primal factors are essential:

(1) A thorough knowledge of the anatomy, physiology and hygiene of the vocal organs. This will include:
   (a) A clinical study of the mechanism of speech and voice production.

(b) A knowledge of the location and functions of the cranial nerves, and the reconditioning of reflexes.
(c) The development of a proper subconscious control of respiration.
(d) An understanding of the sympathetic nervous system and the present progress in endocrinology.
(e) Practice in the technique of Cervin, Liebman, Curtis, Froeschel, Dejerine, Gauckler and Munsterburg, and a study of the work of Cannon, Janet, Head, Pear, Elliot-Smith, Charcot and Kraepelin.

(2) An intimate study of the psychology of speech, including subjectivity, behaviourism and abnormal psychology.
(3) Professional training as a teacher, in order to patiently and untiringly apply the pedagogical principles of correction.

Defective Speech Work in the Public Schools in Syracuse, N. Y.

JOSEPH C. PALMER, M.D.
School Medical Supervisor, Syracuse, N. Y.

A year ago the Board of Education of Syracuse authorized its Department of Health Supervision of Children to provide for the training of kindergarten and primary teachers to qualify them to deal with the defective speech problems of their grades incidental to their teaching. Accordingly in September the work began with the kindergarten teachers. They were instructed by classroom lectures once a week. In addition clinics were established to which the teachers brought the defective speech children of their own accord. In these clinics the teachers observed the methods and technique of correction and were also directed in applying these methods.

At the annual meeting of the American Society for the Study of Speech Disorders at Chicago last December, Prof. H. J. Heltman of Syracuse University, who is in charge of this work for us, read a paper entitled "The Educational Approach to the Problem of Stuttering."

In an article entitled "Symposium on Stuttering" in the June number of the *Journal of Speech*, Dr. R. West of Wisconsin University, who was at the head of the defective speech section of President Hoover's White House Committee for Child Welfare, comments as follows:

"One of the most interesting experiments in the educational approach to the problem was presented at the symposium by Prof. H. J. Heltman of Syracuse University. To give you an idea as to just what is behind the Syracuse movement in speech correction let me quote from Prof. Heltman's paper:

"'In 1924 six primary grade teachers from one of the schools in

Syracuse were organized into a class for training in the principles and practice of speech re-education. A clinic was established in the school to which these teachers brought the defective speech children from their own grade. Here these teachers were instructed in methods of correction. From this small beginning the work has grown until at present it embraces all of the teachers of the primary grades in Syracuse.'

"Let us look for a moment at the growing socialization of the processes for meeting human needs through the schools. Modern educational philosophy recognizes the public school as the channel through which to deal with any deviation in considerable numbers from the normal. This applies to the individual as well as to the group. Personal hygiene, health, special disability, such as blindness, deafness and cripple are commonly recognized as problems within the province of the Board of Education. The reasons for this point of view are many. The purpose of education is to train the individual so that he may adjust himself as far as possible to his environment. For many obvious reasons unless the problems of these deviations from normal are met through the schools they will not be met at all. For it is claimed from the hundred of thousands of stutterers in this country that the problem here cannot ever be adequately dealt with except through the schools. Prof. Heltman continues:

" 'From the environmental point of view for the correction of stuttering the school is fairly adequate. Here the child is under the direction of a person thoroughly equipped to deal efficiently with those environmental factors influencing pupil development several hours a day, five days a week and for a considerable part of the year. This contact is more intimate, sympathetic and constructive than that of most homes from which the children come, since it is the recognized responsibility of the teacher to be efficient in these contacts. While it is admitted that no stutterer can fully recover until he learns to adjust himself to his environment as he finds it, still the teacher can maintain in the school an atmosphere conducive to normal oral self expression."

So far as we have been able to learn, Syracuse represents the first attempt to deal with the problem of speech disorders through its School Department of Health. As a part of a constructive health program during this past year, we have trained approximately 150 teachers in kindergartens and first grades. Through these teachers we have reached approximately 350 children with speech defects serious enough to constitute an educational, social or economic handicap. In the succeeding years we expect to reach consecutively the other elementary grade teachers.

The experiment thus far has proved so satisfactory that the administration has provided next year to extend the training to the upper class in the Syracuse Normal School. In this manner the system is guaranteed a steady flow of teachers who are prepared to do this special speech work together with their other grade responsibilities.

INCIDENCE OF DEFECTIVE SPEECH IN SCHOOL CHILDREN IN NEW YORK STATE EXCLUSIVE OF NEW YORK CITY, BUFFALO AND ROCHESTER

Rather an extensive survey of defective speech among children in the public schools in New York State was made in 1931. It did not include New York City, Buffalo and Rochester. Of the pupils examined 69,492 came from rural sections, 66,859 from villages with a population of over 4,500 and 150,542 from cities and larger villages. In all 286,893 children were reported upon. Of these 9,498 or 3.3% were found to have some form of defective speech. Stammering was the most frequent defect found. This condition when found seemed to persist. Children did not appear to outgrow it. It was found proportionately as often in the upper as in the lower grades. Aphonia and acute nasality also seemed to persist in the higher grades. Lisping, lolling and acute defective phonation, largely due to habit, accounted for nearly two-thirds of all of the cases reported. These defects seemed to diminish as the child advanced in school. On the other hand speech defects due to organic disorders or emotional instability seemed to persist.

DEFECTIVE SPEECH WORK IN THE PUBLIC SCHOOLS IN SCHENECTADY, N. Y.

In Schenectady every new entrant to school is referred to a special teacher in charge of speech conditions. Every child giving any indication of defective speech, in any form, is sent to the Medical Inspection Department for a complete, physical, mental and sociological examination.

A definite program of re-education of the child is then prepared, after consultation and the pupil is put in charge of the special teacher for defective speech.

The teacher in charge of the work has taken special preparation, under the direction of a leading exponent of speech improvement. Under this plan defective speech seems to be well controlled in the schools in the city.

RAW OR PASTEURIZED MILK

In the extensive Lanarkshire milk experiment its authors concluded that "in so far as the conditions of this investigation are concerned, the effects of raw and pasteurized milk on growth in weight and height are, so far as we can judge, equal." The author of this article has rearranged the figures under the three groups 5, 6 and 7 years; 8 and 9; 10 and 11, taking boys and girls separately, and produces tables which show a slight but distinct superiority on the basis of weight and height of raw over pasteurized milk. For all the children grouped together the advantage of raw milk for growth in weight is $0.86+0.42$ and for height $0.345+0.006$. The actual differences are admittedly small, but the experiment only lasted for four months.—W. G. Savage, *Bull. Hyg.*, Aug., 1931, p. 639.

MENTALITY TEST ENDED AS GUIDE AT HORACE MANN

Grouping of Children on I.Q. Rating Alone has Proved Unfair, Principal Reports

The classification of children into bright, normal and backward groups on the basis of their scores in intelligence tests has proved unsatisfactory and will be discontinued at the Horace Mann School of Teachers College, Columbia University, Dr. Rollo G. Reynolds, principal of the school, announced recently in his annual report to Dean William F. Russell, of Teachers College.

A conviction that intelligence tests were unreliable as a means of grouping children and a belief that such tests were helping to make education an instrument for abstract intellectual development rather than a medium for the development of a well-rounded personality led to curtailment of the use of such tests, Dr. Reynolds said. Intellectual snobbery, jealousy between teachers, and parental pressure to place their children in the bright group were cited as among the by-products of such tests.

The decision foreshadows a general reaction throughout the country against the over-use of intelligence tests, Dr. Reynolds believes. American educators have become dissatisfied with the extremes to which a group of "test-crazy" psychologists have gone, he declared. Dr. William H. Kilpatrick, professor of education at Teachers College, supported his conclusion.

Teachers College was one of the leaders in the adoption of intelligence and other tests as a means of classification of pupils. Today, according to statistics of the Federal Bureau of Education, pupils in the public schools of sixty-six American cities of 30,000 or more population, and thirty-six cities of 100,000 or more, are subjected to such tests.

Segregation on the basis of intelligence tests, which at their best measured only one small segment of a child—his ability to master abstract subject matter—proved unfair and ignored the more vital considerations of emotional stability, home conditions, interest in a subject and ability to get along with people, Dr. Reynolds said.

In place of the intelligence tests, the estimate of a teacher who had one year's experience with the child, the ability of the child to achieve, and consideration of his home life, and his likes and dislikes will form the basis of grouping. No bright or dull groups will be formed, although children who experience difficulty in school subjects will be given personal attention.

More than 100 children have received special treatment from the "remedial staff," with a resultant gain of from one to three year's achievement by pupils who would have been classified as backward under the old system, according to Dr. Reynolds, who added that 50 per cent of the defects of such students could be corrected by this method.

WHAT SOME OF OUR MEMBERS ARE DOING

Dr. M. Levitan, School Medical Supervisor at Rome, N. Y., has conducted a very successful campaign of health education, through the local press, health exhibits, leaflets and other means. He found it of great assistance by creating greater parental and public interest in the health service in schools. Write to him for further particulars.

Dr. Claude D. Phelps, School Physician at West Haven, Conn. has developed in his school, an effective system for Mosquito Extermination. He has issued an interesting Bulletin on the subject which could be obtained by writing. It emphasizes the necessity of a well conducted Clean-Up Week to be followed by destruction of breeding places. During his last campaign 1292 pupils destroyed breeding places in their yards.

THE MIND IN THE BREAKING

"The Mind in the Breaking," by Dr. Haven Emerson, is the title of an article appearing in the January, 1931, number of the Graphic Survey. Certain problems relating to mental hygiene are interestingly presented and discussed.

The following members of the American Association of School Physicians have recently been appointed full time school medical supervisors:

Dr. Lillian DeArmit at Schenectady, N. Y.
Dr. Wilburta Daltroff at Port Washington, N . Y.
Dr. Marion Shepard at Kenmore, N. Y.
Dr. Elizabeth C. Wells at Riverhead, N. Y.

The Bulletin would be pleased to hear of new full time appointments and to receive the names of all members who are giving full time to school health service.

MOTION PICTURES FOR HEALTH INSTRUCTION IN SCHOOLS

The *New England Journal of Medicine*, October 15, 1931, describes the method recently adopted by the School Committee of the City of Boston to use motion pictures for health education in the public schools. It should be interesting to educators and health workers in schools. A reprint might be obtained by writing to its author, Dr. Solomon H. Rubin, Acting Director of Department of School Hygiene, 15 Beacon Street, Boston, Mass.

Hygeia, the Health Magazine, published by the American Medical Association, has recently made an attractive offer to teachers interested in Health Teaching. It consists of: 1, A six months' subscription to *Hygeia*, the Health Magazine; 2, A full colored 8½ x 11 inch Human Factory Chart; 3, A copy of Dr. Andress' brochure, "Exploring *Hygeia* for Health Teaching Ideas." All for only one dollar! Address 535 North Dearborn Street, Chicago, Ill.

The Pennsylvania Chapter of the American Association of School Physicians, at its recent Annual Meeting, elected the following officers:

President—Dr. J. M. Quigley, Clearfield.

Secretary-Treasurer—Dr. J. Treichler Butz, Allentown.

All members of the State Chapter belong to the American Association of School Physicians.

In January the SCHOOL PHYSICIANS' BULLETIN will contain a brief history of the establishment of the Pennsylvania Chapter.

Other states contemplating a similar organization so much desired should write to President Quigley.

Charles J. Prohaska, M.D., Supervisor of Health and Physical Education in the Connecticut State Board of Education is taking steps to organize a State Chapter of the American Association of School Physicians.

Let us hope many other states will do likewise.

DENTAL LANTERN SLIDES

Doctors Lokka and Hyatt have estimated that only one unit of 2,250 fissures in molar and bicuspid teeth remain immune to dental decay. Colored lantern slides showing these faults of development in enamel (described in the publication "Better Teeth")* are offered free to teachers and public health workers by Professor C. F. Boedecker of Columbia University, School of Dental and Oral Surgery.

*Metropolitan Life Insurance Company, New York City.

DENTAL RESEARCH REPORTS

The present state of our knowledge as to the origin of defective decayed teeth is thus summed up by Percy R. Howe, Chief of Research Laboratory, Forsythe Dental Infirmary for Children, Boston. "So far as may be seen from recent research dental disorders are to be considered as fundamentally due to irregular mineral metabolism, which in turn is due in large part to the character of the diet."

"BETTER TEETH"

The Statistical Bulletin of the Metropolitan Life Insurance Company for June, 1928, states that among nearly 20,000 employees of that company who have received dental examinations in the last twelve years, only two sets of perfect teeth have been found. It is in the faults of enamel (pits and fissures) which exist from the teeth are formed and decay begins. The treatment of these defects in school children for the prevention of decay is described in the publication, "Better Teeth" issued by the Bureau of Education last year.

PERSONAL ITEMS

Beginning in January, the BULLETIN will endeavor to each month run Personal Items regarding members of the Association. Help us to do so. Let us know your official position, how long you have occupied it, size of your staff, number of children under your supervision, or the particular field in which you are especially interested, etc.